

MAX SEIDEL (470) 419-1200 | seidel.m@northeastern.edu | maxseidel.github.io/portfolio/

EXPERIENCE

Available Full Time Jun 27 - December 30

Berkshire Grey, Bedford, MA - *Mechanical Engineering Co-op Robotic Pick Team*

Jul 2021 - Dec 2021

- Designed and production run (25), of a novel tool & enclosure to calibrate and upgrade sensors across all robotic pick cell operations. Gathered requirements, made all drawings, held design reviews, & worked with suppliers for custom solutions.
- Designed testing frame for robotic and perception hardware operating above manufacture limits. Testing for “Infant Mortality” in hot and humid environments per MIL Standard. Resulted in a report identifying further testing needed.

Atlanta Face Shields - *Founder* | <https://atlantafaceshields.com/>

Mar 2020 - Mar 2021

- Created and Led nonprofit to provide PPE to essential workers during COVID-19 pandemic by raising \$30,000 used to produce over 5,000 3D printed face shields.
- Leveraged partnerships with The Coca-Cola Company, TOM, VMWare, Taulman3D, Atlanta Beats Covid, Atlanta Police Department, and all major hospitals in the Atlanta area; to source raw materials, funding, volunteers, and distribution.
- Utilized Trello, GoFundme, Instagram, and created a website to manage logistics, delegation of work, large scale manufacturing, and volunteer organization.

Expeditionary Robotics Laboratory, Northeastern University - *Undergraduate Researcher*

Sep 2019 - Feb 2020

- Designed & implemented multiple dynamic self-folding fingers for the “Origami Robot Gripper” project.
- Developed active origami wrist brace for assisted typing through gesture recognition for carpal tunnel prevention.

CRAB Lab, Georgia Institute of Technology - *Research Assistant*

May 2018 - Nov 2021

- Published peer reviewed paper, *Lateral bending and buckling aids biological and robotic earthworm anchoring and locomotion*, to *Bioinspiration and Biomimetics* (2021).
- Led the design, construction, and data collection for the “Smarticle” and “Soft Robotic Earthworm” projects at the Complex Rheology and Biomechanics Lab.

Max’s 3D Hub, Atlanta, GA - *Founder*

May 2015 - Apr 2019

- Started personal 3D printing business with a built-from-scratch 3D printer. Acquired additional 3D printers to expand manufacturing capabilities and increase revenue.
- Managed 80+ clients worldwide, printed 150+ client orders, maintaining top Atlanta Hub rating of 4.9/5.

EDUCATION

Northeastern University, Boston, MA

Candidate for Bachelor of Science in Mechanical Engineering Minor in Mathematics | **GPA: 3.69**

Expected May 2024

- Activities and Honors: James W. Healy Full Scholarship, National Hispanic Recognition Program Scholarship, LSAMP Scholar, Hispanic Scholarship Fund Finalist. Tikken Olam Makers@NEU Community Manager and TOM@University Fellow. Global Dialogue: Engineering Computation and Design to Harness Clean Energy in Norway (May-Jun 2022).

PROJECTS

Georgia Governor's Honors Program

Jun 2019 - Jul 2019

- Developed a Computer Vision system to detect failed 3D prints in Python and SciPy using edge detection filters.

Exoskeleton with Artificial Pneumatic Muscles

Jan 2018 - Dec 2018

- Georgia Science and Engineering Fair | Major Awards: Georgia Tech Prosthetics and Orthotics Award, Biophysics Award, and Best in Category.

Myoelectric Prosthesis without Targeted Muscle Reinnervation Surgery

Jan 2017 - Dec 2017

- Intel International Science and Engineering Fair Finalist | Major Awards: Intel Excellence in Computer Science, Georgia Tech Prosthetics and Orthotics Award, Biophysics Award, and Best in Category.

SKILLS

SOFTWARE | SolidWorks, Cura, Slic3r, Eiger, MATLAB, Arduino, C++, Python, Java, HTML, PDM/PLM, ECO process.

LANGUAGES | English and Spanish (native)

GENERAL | Use and repair of 3D printers (FFF and SLA), Soldering, Hand tools, Power tools, PC building, Wood lathe, Pneumatics, Electrical circuits, MIG Welding, Exposure to GD&T.